Superior Energy Performance®
U.S. DEPARTMENT OF ENERGY

Superior Energy Performance® (SEP™)

Scorecard

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U.S. DEPARTMENT OF ENERGY

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Scorecard Methodology

Introduction

Superior Energy Performance® (SEP ™) is a certification program for facilities that implement an energy management system (EnMS) in conformance with the ISO 50001:2011 *Energy management system-Requirements with guidance for use* standard and achieve sustained improvements in energy performance. Additional requirements for SEP certification are defined in the ANSI/MSE 50021 standard *Superior Energy Performance® - Additional Requirements for Energy Management Systems* and its normative references, including this SEP Scorecard.

The SEP Scorecard defines the credits that an organization must earn (and have validated by an accredited verification body) to become certified at the SEP Gold or Platinum performance levels. Use of this Scorecard is not required to achieve the SEP Bronze or Silver performance level. Scorecard credits are organized in three focus areas: Energy Management System (EM), Additional Energy Performance (AEP), and Advanced Practice (AP). These credits are for activities above and beyond both the requirements of ISO 50001 and the SEP requirements as specified in ANSI/MSE 50021, SEP M&V Protocol and the SEP Certification Protocol. Details on the SEP Program scoring (using the SEP Scorecard) to earn Gold and Platinum is provided in the SEP Certification Protocol, located at http://www.energy.gov/eere/amo/superior-energy-performance.

Scorecard Credits

Scorecard credits can be earned in the following categories:

1. Energy Management System (EM)
   - Energy Data Monitoring and Measurement (DM)
   - Significant Energy Uses (SU)
   - Energy Supply (ES)
   - Management of Energy Opportunities (EO)
   - System Sustainability (SS)
2. Additional Energy Performance (AEP)
3. Advanced Practice (AP)

Table 1 lists the credits in each category and the total number of points for each category and credit.

The Explanation of Credit section in this Scorecard provides the following details for each credit:

1. **Available points for the credit**: Designates the value(s) for the credit.
2. **Intent**: Describes the purpose of the credit.
3. **Credit statement**: Summary of what the organization must demonstrate to receive the points.
4. **Measurement and verification criteria for certification, and recertification**: Defines the evidence that will be evaluated by an auditor or verifier during the SEP certification, or re-

certification audit. Unless explicitly stated in the measurement and verification criteria for the credit, no points will be awarded unless all measurement and verification criteria are satisfied.

TABLE 1: SCORECARD CREDITS

Scorecard Credit Categories				Points
Energy Management System Credits (EM)				68
	Energy Data, Monitoring and Measurement (DM)			**17**
		DM Credit 1.1	Data availability	2
		DM Credit 1.2	Improve data collection and analysis	3
		DM Credit 2.1	EnPI updating	2
		DM Credit 2.2	Establish benchmarks	2
		DM Credit 3.1	Submeters	4
		DM Credit 3.2	Cost centers	4
	Significant Energy Uses (SU)			**17**
		SU Credit 1	Energy Balance	2
		SU Credit 2	Designation of significant energy uses	8
		SU Credit 3.1	Equipment repair and replacement policy	3
		SU Credit 4.1	Maintenance Practices for Improving Energy Performance	2
		SU Credit 4.2	EnPIs for significant energy uses	2
	Energy Supply (ES)			**2**
		ES Credit 1.1	Include procurement personnel on energy team	2
	Management of Energy Opportunities (EO)			**14**
		EO 1.1	Energy assessment of energy use(s)	6
		EO 1.2	Continual improvement tools	2
		EO 1.3	Life cycle costing	2
		EO 2	Lower financial barriers	4
	System Sustainability (SS)			**18**
		SS Credit 1.1	Resources: energy management team	2
		SS Credit 1.2	Awards or incentive program for energy	4
		SS Credit 1.3	Energy professional certifications	2
		SS Credit 1.4	Strategic planning	4
		SS Credit 2.1	Preventive action	2
		SS Credit 2.2	DOE SEP Voluntary Cost / Benefit Form	4
Additional Energy Performance Credits (AEP)				
		AEP Credit 1	Additional energy performance improvement	*
Advanced Practice Credits (AP)				**25**
		AP Credit 1	Combined heat & power	5
		AP Credit 2	Renewable energy	5
		AP Credit 3	Superior Performance with benchmarks	5
		AP Credit 4	Supply chain training, tracking & reporting	5
		AP Credit 5	Emerging technologies	5

* 2 Points for every 1% energy performance improvement greater than the required threshold

Points for Scorecard credits are awarded during the stage 2 certification or recertification audit based on the application received and the audit results. No points are awarded or changed during stage 1 or surveillance audits; therefore the status of SEP performance level is not changed during the surveillance audits.

The SEP Certification Protocol contains information about the roles and requirements of SEP Lead Auditors and SEP Performance Verifiers. Additional information on how the credits are audited is provided in ANSI/MSE 50028 *Superior Energy Performance® - Requirements for verification bodies for use in accreditation or other forms of recognition*.

The AP credits reward innovative activities or use of technology that lead to EP improvements. The *Emerging Technologies* credit (AP5) allows facilities to apply for credit that is not addressed elsewhere in the Scorecard. Facilities that wish to claim the Emerging Technologies credit are required to document the innovation and notify the SEP Program Administrator prior to Stage 1 of the certification audit or the recertification audit. The SEP Administrator will ensure that the proposed credit does not result in overlap or double counting of credits. The SEP Administrator will then approve the proposed credit, assign a point value, define and document audit criteria, and communicate the details to the verification body (VB) and the organization. The VB will ensure that the details are communicated to the SEP PV.

In a few Scorecard credits, the term "effective personnel" is used to define to whom the credit applies. This term is from ISO 50003:2014. The definition is shown in the insert.

EnMS Effective personnel

People who actively contribute to meeting the requirements of an EnMS

Note 1 to entry: EnMS effective personnel contribute to the requirements of the EnMS within the scope and boundaries for establishing, implementing or maintaining energy performance improvements.

Source ISO 50003:2014 (3.3)

Types of Audits for Demonstrating Credits

There are two different types of audits where the Scorecard credits are reviewed:

1. The stage 2 (certification) audit assesses the information and evidence that demonstrate that the credit conforms to the credit requirements for those credits indicated on the SEP application. The stage 2 audit determines if the credits are effectively implemented in order to award points. Note: Stage 1 (certification) audit will confirm the credits on the SEP application are correct or that any changes are identified prior to the stage 2 audit.
2. The recertification audit is based on the new application, in which the organization identifies the credits that the organization wants the audit to confirm. The recertification audit takes into account any internal or external changes to the system. Points are awarded for those credits that are effectively implemented.

The surveillance audit does not assess the credit practices because no points are awarded or changed during surveillance audits.

Explanation of Credits

Energy Management System (EM)

ENERGY DATA, MONITORING AND MEASUREMENT (DM)

The Scorecard credits for Energy Management System (EM) are intended to represent the practices of a system that goes above and beyond both the requirements of ISO 50001 and the SEP requirements as specified in ANSI/MSE 50021 and the SEP Certification Protocol.

The first of the five topic areas in EM is energy data monitoring and measurement (DM). Data drive the management of energy and an organization can't effectively manage energy if it doesn't measure it. Monitoring and measuring is the only way to know the organization's level of energy consumption and to control and ultimately reduce energy consumption. Energy consumption data are also necessary to evaluate equipment and systems prior to purchase and installation so that the most fuel-efficient option can be acquired to minimize operating expenses. To ensure that equipment continues to operate at peak performance levels, energy consumption data must be monitored, collected, and analyzed during operation. Deteriorating energy performance can often signal a need for adjustments or other maintenance activities necessary to restore equipment to peak operating performance. In addition to indicating proper equipment operation, energy data monitoring can be a critical component in proper process operation when process parameters have changed, indicating detrimental results on energy consumption. Energy consumption data are also necessary to evaluate the results of process or equipment changes implemented to improve efficiencies and reduce operating costs.

Data monitoring and measurement is only the first step in the effective use of energy information. Once energy data are collected, data analyses are required to determine the performance of the organization's equipment and systems and can be used to make decisions regarding process changes, process or equipment improvements, or the need for equipment maintenance. Analysis is also necessary to determine the root cause of any efficiency deterioration. A growing inefficiency in energy consumption may be a signal of equipment issues or could indicate process problems not directly related to the condition of the equipment itself. Performance is important to the SEP program and data are critical to defining and improving performance.

The areas of the ISO 50001:2011 standard related to energy data management include:

- 4.4.3 Energy review
- 4.4.4 Energy baseline
- 4.4.5 Energy performance indicators
- 4.5.5 Operational control
- 4.6.1 Monitoring, measurement and analysis

DM CREDIT 1.1: DATA AVAILABILITY

2 Points

Intent

To ensure that persons working for or on behalf of the organization whose activities have been identified as having an impact on energy have access to energy data and information from the energy review and that energy is a consideration in their activities.

Credit Statement

The energy review shall be available and readily accessible, in electronic form, to persons working for or on behalf of the organization whose activities have been identified as having an impact on energy. User privileges define access to confidential data. Ensure that the energy data are available and being utilized by effective personnel.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies this credit:

- Evidence of availability and accessibility of the electronic energy review by effective personnel.

  Note: Electronic energy review – is energy review information that is available electronically. It may be composed of multiple files.

- Evidence that persons identified as effective personnel are utilizing energy review information.
- The organization shall show records related to this credit during the reporting period for the initial certification or recertification audits.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

DM CREDIT 1.2: IMPROVE DATA COLLECTION AND ANALYSIS

3 Points

Intent

To enhance energy planning and the identification of opportunities through improved data collection and data mining.

Credit Statement

The organization shall demonstrate improvements in the collection and use of energy data or data analysis techniques during the three years prior to application for SEP certification or recertification. The

organization shall demonstrate how the improvement led to new insights into energy performance or to the identification of performance improvement opportunities.

NOTE: The addition of submeters is not addressed by this credit. Refer to *DM Credit 3.1: Submeters*.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of improved energy data collection or analysis during the achievement period.
- Evidence of new insights in energy performance or the identification of performance improvement opportunities as a result of improved energy data collection or analysis during the reporting period.
- The organization shall show records related to this credit during the achievement period and reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence that energy collection or analysis has continued to improve after the certification reporting period.
- Evidence of new insights in energy performance or the identification of performance improvement opportunities as a result of improved energy data collection or analysis after the certification reporting period.

DM CREDIT 2.1: E_NPI UPDATING

2 Points

Intent

To frequently update and monitor EnPIs to drive energy performance improvement.

Credit Statement

The organization shall update and monitor EnPIs monthly or more frequently to demonstrate improvement in energy performance and to identify new energy performance improvement opportunities. One or more of these opportunities shall be identified during the three years prior to SEP application for certification or recertification from this activity.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that energy performance indicators (EnPIs) are updated at least monthly.

- Evidence of a new performance improvement opportunity(ies) identified as a result of EnPI updating and monitoring during the achievement period.
- The organization shall show records related to this credit during the achievement period and reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.
- Additional performance improvement opportunities being identified may be considered as a part of the ISO 50001 surveillance audit due to the energy review process. Review of this information during the surveillance audit is not considered an audit of this credit.

Recertification Criteria

- Recertification criteria are the same as those for certification.

DM CREDIT 2.2: ESTABLISH BENCHMARKS

2 Points

Intent

To encourage the use of internal or external benchmarks to evaluate performance for similar organizations, processes, systems, or equipment, and to evaluate improvements or detect deterioration in energy performance.

Credit Statement

The organization shall develop and use internal or external benchmarks to evaluate the energy performance of the organization, processes, systems or equipment.

For the purposes of this credit, an internal benchmark is a benchmark that is used for comparison within the corporate organization.

NOTE: A benchmark is defined as a standard of performance that is used as a basis of comparison for a facility, system, process, or piece of equipment. Benchmarks may be framed in terms of performance indicators (e.g., kWh/100 cfm for compressed air, MMBtu/1000 pounds of steam for steam systems).

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that the organization has developed internal or external benchmarks.
- Evidence that the organization uses benchmarks to evaluate the energy performance of the organization, processes, systems, or equipment.
- The organization shall show records related to this credit during the reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence that benchmarks continue to be used to evaluate energy performance and take into consideration any changes that have occurred in the EnMS.

DM CREDIT 3.1: SUBMETERS

2 - 4 Points

Intent

To provide enhanced data collection for analysis of equipment and systems to improve energy performance.

Credit Statement

The organization shall utilize submeters to measure consumption of all energy sources of significant energy uses (SEU) to collect data for analysis of energy performance. Data from the submeters shall be read at least monthly and shall be included in the energy review and the measurement plan.

Greater than 50% and less than 100% of SEUs have submetering for each energy source	2 points
100% of SEUs have submetering for each energy source	4 points

For the purposes of this credit, a submeter is defined as a fixed instrument or meter that continuously collects energy data.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of submeters being used for collecting energy consumption data of the significant energy use for each energy source utilized by the significant energy use.
- Evidence of the percentage of significant energy uses that are submetered for each energy source.
- Evidence that the significant energy use energy consumption data are gathered at least monthly.
- Evidence that the significant energy use submetered data are included in the energy review and measurement plan.
- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

DM CREDIT 3.2: COST CENTERS

4 Points

Intent

To report energy consumption and cost to organizational departments to encourage accountability for energy consumption.

Credit Statement

Departmental managers shall be accountable for energy costs incurred by the activities associated with their cost center, and those costs shall be based on the measured energy consumed by those activities. Reports of departmental costs that include energy costs shall be prepared and distributed to departmental managers at least quarterly, and preferably monthly.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit

- Evidence of energy consumption measurement for each energy source utilized by a cost center.
- Evidence of charges associated with measured energy consumption against each cost center.
- Evidence of communication of energy charges to cost center managers.
- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification

SIGNIFICANT ENERGY USES (SU)

Significant energy uses are the equipment, processes, applications, or activities identified as being significant components of the organization's energy consumption or providing the largest improvement opportunities. However, these uses also pose the largest risk if they are not managed well.

Management of the significant energy uses entails a combination of activities. It is essential that significant energy uses are monitored, controlled, and maintained as appropriate to ensure continued or improved energy performance. In addition, energy concerns should be considered when purchasing new equipment or systems that are associated with the significant energy uses.

Without the proper management of significant energy uses, energy consumption can quickly increase. Because of the magnitude of energy consumption by these uses, poor purchasing decisions or improper operation of related equipment can drastically impact an organization's energy consumption. Large swings in consumption might even dwarf performance improvements made in other areas of the organization. Maintenance is another key component of management of significant energy uses. Without proper equipment maintenance, even the most energy-efficient equipment can become inefficient, resulting in increased energy consumption.

The areas of the ISO 50001:2011 standard that are related to the management of significant energy uses include:

- 4.4.3 Energy review
- 4.4.6 Energy objectives, energy targets, and energy management action plans
- 4.5.2 Competence, training, and awareness
- 4.5.5 Operational control
- 4.5.7 Procurement of energy services, products, equipment, and energy
- 4.6.1 Monitoring, measurement, and analysis

MANAGEMENT OF SIGNIFICANT ENERGY USES (SUs)

SU CREDIT 1: ENERGY BALANCE

2 Points

Intent

To encourage a better understanding of the relative energy consumption of processes, equipment, and systems.

Credit Statement

The organization shall document the method for an energy balance detailing the energy consumption of the systems and equipment SEUs, and the energy consumption data sources that, when combined, account for at least 90% of the total energy consumption within the facility. The method shall address how changes to the facilities, processes, or equipment are included. The energy balance shall be recorded, updated and maintained as a part of the energy planning process.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of a documented energy balance process detailing the energy consumption of systems and equipment.
- The energy balance shall include all SEUs.
- Evidence that the energy consumption detailed in the energy balance record is at least 90% of the total energy consumption of the facility. .
- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence of a new or updated energy balance completed after certification accounting for any changes in facilities, systems, processes, equipment, or SEUs.
- Evidence that the energy consumption detailed in the maintained energy balance is at least 90% of the total energy consumption of the facility.

SU CREDIT 2: DESIGNATION OF SIGNIFICANT ENERGY USES

2 - 8 Points

Intent

To encourage organizations to continually broaden the scope of the equipment and systems that are designated as significant energy uses.

Credit Statement

The combined energy consumption of significant energy uses shall be greater than a specified percentage of the organization's total energy consumption.

TABLE 2: POINTS FOR DESIGNATED SEU CREDIT

≥ 50% and < 60%	2 points
≥ 60% and < 70%	4 points
≥ 70% and < 80%	6 points
≥ 80%	8 points

Equipment, systems, or processes designated as significant energy uses must be managed as defined in ISO 50001:2011. This credit is not available if the organization has not designated significant energy uses that account for at least 50% of the total energy consumption.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that significant energy uses identified account for at least 50% of the organization's total energy consumption. Evidence of the percentage of site energy consumption utilized by all of the significant energy uses combined based on the points chart. (See Table 2)
- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SU CREDIT 3.1: EQUIPMENT REPAIR AND REPLACEMENT POLICY

3 Points

Intent

To encourage life cycle cost considerations in decision making for replacement and repair of equipment.

Credit Statement

A repair and replacement policy shall be documented that defines how energy efficiency and life cycle costing are taken into account in repair and replacement decisions.

Note: Rejecting energy-efficient equipment based solely on initial capital cost considerations does not meet the intent of this requirement.

Measurement and Verification Criteria

Certification Criteria

The following evidence, using Approach 1 or 2, is required to determine if the organization satisfies the requirements of this credit:

- Approach 1: Evidence that a repair and replacement policy has been implemented and that the policy defines how energy performance and life cycle costing are taken into account.
- Approach 2: Implementation, maintenance, or certification to ISO 55001 ***Asset management -- Management systems -- Requirements*** may be used to meet this credit if energy performance and life cycle costing are taken into account in the asset management processes.
- For Approaches 1 or 2: The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SU CREDIT 4.1: MAINTENANCE PRACTICES FOR IMPROVING ENERGY PERFORMANCE

2 Points

Intent

To encourage the use of preventive and predictive maintenance programs that incorporate energy efficiency guidelines for equipment and systems associated with significant energy uses.

Credit Statement

The organization shall identify preventive and predictive maintenance activities that improve the energy-efficient operation of the equipment and systems associated with significant energy uses. Identified maintenance activities shall be included in the maintenance system and completed as scheduled.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that preventive and predictive maintenance activities that improve the energy-efficient operation of the equipment and systems associated with significant energy uses have been identified.
- Evidence that these preventive and predictive maintenance activities are included in the maintenance system.
- Evidence that these preventive and predictive maintenance activities are completed as scheduled.
- The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SU CREDIT 4.2: E_NPIS FOR SIGNIFICANT ENERGY USES

2 Points

Intent

To encourage a better understanding of operations and variability in significant energy uses.

Credit Statement

Energy performance indicators (EnPIs) shall be developed for each significant energy use based on metered data or measurements. These EnPIs shall be tracked on at least a monthly basis.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that energy performance indicators (EnPIs) are developed for each significant energy use based on metered data or measurements (i.e., not based on engineering model calculations).
- Evidence that energy performance indicators for significant energy uses are tracked on at least a monthly basis.
- The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

ENERGY SUPPLY (ES)

Effective management of energy resources and utility suppliers is critical to creating a comprehensive energy management program. Proactive energy supply management ensures that an organization procures the necessary energy resources in sufficient quantity with adequate quality at a competitive price in order to: continue planned operations, meet production schedules, and manage energy performance improvement effectively.

Without proper management of energy supply, unit and cumulative energy costs can quickly escalate. Because energy purchasing decisions influence all aspects of energy management, poor purchasing decisions can drastically impact the organization's energy budget. Constant attention and informed decisions are necessary to achieve the optimum energy purchasing plan. Procurement of energy supplies requires explicit knowledge of the organization's energy resource requirements and the existing and potential supply options available, as well as practical information on the operating characteristics of current energy systems.

The areas of the ISO 50001:2011 standard that are related to the management of energy supply include:

- 4.5.7 Procurement of energy services, products, equipment and energy

Purchasing Function outside Scope of Management System

Many organizations have a central purchasing function that procures energy supply for multiple facilities. The purchasing function may be separate from and outside the control of the organization that is implementing ISO 50001:2011. Where this situation exists, it may be more difficult to implement ES Credit 1.1. Nevertheless, communication between the supply and demand sides of the organization is important to optimize energy performance and ES Credit 1.1 does not make exceptions for organizational structure.

MANAGEMENT OF ENERGY SUPPLY (ES)

ES CREDIT 1.1: INCLUDE PROCUREMENT PERSONNEL ON ENERGY TEAM

2 Points

Intent

To enhance communication and interaction between the personnel that procure energy and those that manage energy use, consumption, and performance.

Credit Statement

Personnel responsible for energy procurement activities shall:

a) Participate regularly in energy team meetings,
b) Provide scheduled awareness training on energy procurement bids and contracts to the energy team, and
c) Act as liaison to facilitate communication between energy procurement personnel and the energy team.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of energy team meetings that include personnel with procurement responsibility.
- Evidence that the energy team is being updated or trained by procurement personnel on energy procurement bids and contracts.
- The organization shall show records related to this credit during the reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

MANAGEMENT OF ENERGY OPPORTUNITIES (EO)

The concept of management of energy opportunities is intentionally broad and incorporates many types of activities including purchasing, operational control, maintenance practices, and traditional capital improvement, among others. Organizations implement many action plans within their organization that have multiple benefits including energy savings. In some cases, energy savings may not be the primary goal.

ISO 50001:2011 refers to energy opportunities in several areas:

- Energy review (4.4.3)
- Energy objectives, energy targets and energy management action plans (4.4.6)
- Monitoring, measurement and analysis (4.6.1)

This is a technical category that refers to the activities associated with identifying, planning, prioritizing, and implementing opportunities for energy performance improvement. Several key concepts in the standard concerning this topic are:

- Implementing energy improvement opportunities is a means for achieving objectives and targets. Prioritizing these opportunities should result from careful planning that is influenced by an organization's energy policy, legal requirements, and its financial and business objectives.
- Action plans are documents that show the details required to implement energy performance opportunities.
- Action plans should be implemented as planned including the post-installation measurement and verification of energy performance improvement.
- Closing the loop on improvements in energy performance means incorporating resulting changes into the management system.
- Action plans must be evaluated to ensure that they are effective.

Management of Energy Opportunities

EO CREDIT 1.1: ENERGY ASSESSMENT OF ENERGY USE(S)

2 - 6 Points

Intent

To ensure that opportunities for energy performance improvement related to significant energy uses and other energy uses are continually incorporated into the energy management system.

Credit Statement

Energy assessment(s) are conducted on the designated energy use(s) at least once during the three years prior to certification or re-certification, and the energy assessment report meets the requirements of the most relevant American Society of Mechanical Engineers (ASME) EA-series of standards, which are listed at: https://www.asme.org/shop/standards#des=EA,searchBy=EA

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that an energy assessment has been completed on a significant energy use during the three years prior to certification or re-certification.
- Evidence that an energy assessment has been completed on an energy system within the scope and boundaries of the EnMS. Note: The assessment does not have to be conducted on an SEU. (1 point)
- There is a maximum of 6 points for this credit:
- 2 points for each SEU up to a maximum of 6 point per certification or recertification cycle. The organization shall show records related to this credit during the achievement period and reporting period, including the energy assessment report. Implementation of actions identified in the energy assessment during the surveillance periods is encouraged. The energy assessment report must meet the requirements of the most relevant ASME EA-series of standards. An example energy assessment report outline is shown below, from *ASME EA-3-2009 Energy Assessment for Steam Systems*:
    - Executive summary
    - Facility information
    - Assessment goals and scope
    - Description of system(s) studied in assessment and significant system issues
    - Assessment data collection and measurements
    - Data analysis
    - Steam system baseline
    - Performance improvement opportunities and prioritization
    - Recommendations for implementation activities

- Appendices

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence that a new energy assessment has been completed or the original assessment updated on a significant energy use or other energy use during the three years prior to recertification, and the energy assessment report meets the requirements of the most relevant ASME EA-series of standards. An example energy assessment report outline is shown below, from *ASME EA-3-2009 Energy Assessment for Steam Systems*:
  - Executive summary
  - Facility information
  - Assessment goals and scope
  - Description of system(s) studied in assessment and significant system issues
  - Assessment data collection and measurements
  - Data analysis
  - Steam system baseline
  - Performance improvement opportunities and prioritization
  - Recommendations for implementation activities
  - Appendices

EO CREDIT 1.2: CONTINUAL IMPROVEMENT TOOLS

2 Points

Intent

To encourage the inclusion of energy considerations within quality, environmental, and productivity continual improvement activities or tools.

Credit Statement

The organization shall include energy use and energy consumption as a potential factor to be improved within continual improvement activities and tools that are typically related to productivity improvements.

Activities defined as energy assessments do not meet the intent of this credit.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of the use of commonly recognized advanced continual improvement activities and tools for quality, environmental or productivity.
- Evidence of the use of these activities or tools to improve energy use and consumption.

- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is accepted but not required.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

EO CREDIT 1.3: LIFE CYCLE COSTING

2 Points

Intent

To consistently incorporate the techniques of life cycle costing into the evaluation of energy performance improvement opportunities in place of only first cost analysis.

Credit Statement

Energy performance improvement opportunities shall be consistently evaluated and prioritized using the results of life cycle costing (LCC) analysis. LCC analysis is only required for energy performance improvement opportunities with a simple payback greater than two years.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of life cycle costing analysis for energy performance improvement opportunities with a simple payback greater than two years.
- Evidence of energy performance improvement opportunity prioritization based on or partly based on life cycle costing analysis.
- The organization shall show records related to this credit during the achievement and reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

EO CREDIT 2: LOWER FINANCIAL BARRIERS

4 Points

Intent

To encourage greater implementation of energy performance improvement opportunities by providing financial incentives for implementing capital opportunities included in the energy management action plans.

Credit Statement

The organization shall establish a separate pool of capital for energy performance improvement opportunities and shall utilize a financial hurdle rate that is at least the same or less stringent than hurdle rates for other capital projects in the organization.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of capital slated for energy performance improvement opportunities.

  Note: The capital for the energy projects may reside at various levels within the organization.
- Evidence of a financial hurdle rate that is at least the same or less stringent than hurdle rates for other capital projects in the organization.
- The organization may use any combination of the achievement, reporting or timeframe before certification to demonstrate this credit.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SYSTEM SUSTAINABILITY (SS)

Energy is used by everyone within the organization and is therefore the responsibility of everyone within the organization to manage. The areas of the ISO 50001:2011 standard that are related to system sustainability include:

- Management responsibility (4.2)
- Energy policy (4.3)
- Communication (4.5.3)
- Nonconformities, correction, corrective and preventive action (4.6.4)
- Management review (4.7)

System sustainability is the phrase used to describe how the activities of the energy management system:

- Move into the everyday practices of the organization.
- Are addressed through roles, responsibilities, and authorities that are dispersed through every part of the organization and at every level within the organization.
- Address the energy-related activities of stakeholders (e.g., employees, suppliers, contractors).
- Promote transparency of energy policy and objectives of the organization.
- Promote informed decision making related to energy.
- Encourage energy performance improvements by employees outside of the workplace.
- Are prioritized and resourced by management and demonstrated through effectiveness of the management system.

SS CREDIT 1.1: RESOURCES: ENERGY MANAGEMENT TEAM

2 Points

Intent

To promote the active participation and involvement of top management in the organization's energy management system.

Having a top manager on the energy management team helps to achieve consistent top management support.

Credit Statement

The organization's energy team shall include a member of top management.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that a member of top management is on the energy team.
- Evidence that this member participates consistently in energy team meetings and activities.
- The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SS CREDIT 1.2: AWARDS OR INCENTIVE PROGRAM FOR ENERGY

4 Points

Intent

The purpose of this credit is to encourage the active participation and involvement of employees from across the organization in energy management and energy performance improvements.

Credit Statement

The organization shall establish, implement, and maintain an ongoing awards or incentive program for energy that recognizes and rewards employee accomplishments in energy management and/or energy performance improvements.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of an awards or incentive program that recognizes employee accomplishments in energy management and/or energy performance improvements.

  NOTE: Award and incentive programs may reside at various levels within the organization.

- The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SS CREDIT 1.3: ENERGY PROFESSIONAL CERTIFICATIONS

2 Points

Intent

To promote, within the organization, investment in energy management competence that meets a recognized standard.

Credit Statement

During the past three years, the organization shall have invested in the education and training or in the hiring of one or more certified professionals in the field of energy management. This education shall also include ongoing training required to retain certification by energy management professionals. The certified professionals shall have responsibilities for and be active in the energy management activities of the organization.

For this credit, only the following professional certifications[1] are recognized:

- CEM, Certified Energy Manager [Association of Energy Engineers (AEE)]
- Certified Practitioner in Energy Management Systems [U.S. Department of Energy (DOE), U.S. Council for Energy-Efficient Manufacturing (IEnMP)]
- SEP Performance Verifier [DOE, IEnMP]
- CMVP Certified Measurement & Verification Professional [AEE]
- Certified Superior Energy Performance Lead Auditor [DOE, IEnMP]

[1] Accredited per ISO 17024

- Certified ISO 50001 Auditor or Lead Auditor from an ISO 17024 Accredited Personnel Certification Body [IEnMP]

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that the organization has one or more employees with responsibilities in energy management that maintain professional certifications from the following list:
  - CEM, Certified Energy Manager [Association of Energy Engineers (AEE)]
  - Certified Practitioner in Energy Management Systems [U.S. Department of Energy (DOE), U.S. Council for Energy-Efficient Manufacturing (IEnMP)]
  - SEP Performance Verifier [DOE, IEnMP]
  - CMVP Certified Measurement & Verification Professional [AEE]
  - Certified Superior Energy Performance Lead Auditor [DOE, IEnMP]
  - Certified ISO 50001 Auditor or Lead Auditor from an ISO 17024 Accredited Personnel Certification Body [IEnMP].
- Evidence that the organization has invested in the education and training required for employees to obtain or maintain this certification or evidence of hiring one or more certified professionals in the field of energy management, in the three years prior to certification or re-certification.

  NOTE: Professional certifications may reside at various levels within the organization, provided they support the site. If located at a corporate level, the certified person may support more than one site.
- Evidence of management commitment to sustain this commitment when personnel changes have occurred by acquiring certified personnel, by adding resources or by acting to certify other personnel on staff.
- The organization shall show records related to this credit during the achievement or reporting period. Using additional data from the surveillance periods is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SS CREDIT 1.4: STRATEGIC PLANNING

2 - 4 Points

Intent

To ensure that prioritized energy management needs, opportunities, and expectations are aligned with and incorporated into an organization's strategic priorities and to encourage participation in the U.S. Department of Energy (DOE) Better Buildings, Better Plants Program.

Credit Statement

Organizational strategic plans shall establish and address energy management priorities and shall provide for resource allocations consistent with those priorities - 2 points.

Top management shall make a commitment to participate in the U.S. Department of Energy Better Buildings, Better Plants Program and to reduce energy intensity by 25% over 10 years - 2 points.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that the organizational strategic plans address energy management priorities and provide resources consistent with priorities (2 points).
- Evidence that the organization has committed to participate in the U.S. Department of Energy Better Buildings, Better Plants Program and to reduce energy intensity by 25% over 10 years (2 points).
- The organization shall show records related to this credit during the reporting period. Additional data during the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SS CREDIT 2.1: PREVENTIVE ACTION

2 Points

Intent

Utilizing trends identified through evaluation of energy data enables the development of additional opportunities for energy performance improvement.

Credit Statement

Trends in energy data shall be identified and utilized to develop energy performance improvement opportunities. Identification of these trends and opportunities shall be included in the preventive action system and shall be used as an input to the energy planning process.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that energy data trends are being monitored.
- Evidence that energy data trends are being utilized to develop energy performance improvement opportunities.
- Evidence that energy data trends and opportunities are included in the preventive action system.
- Evidence that the identified energy performance improvement opportunities are included in the prioritized energy performance improvement opportunities list.
- The organization shall show records related to this credit during the reporting period. Using additional data from the achievement period is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

SS CREDIT 2.2: DOE SEP VOLUNTARY COST/ BENEFIT FORM

1-4 points

Intent

To encourage organization to complete the DOE SEP Voluntary Cost /Benefit Form demonstrating the benefits and cost for the SEP program.

Credit Statement

The organization shall complete and submit the DOE SEP Voluntary Cost /Benefit Form with the application for each certification cycle. (3 points)

The organization participates in the development of a DOE case study based on the submitted form. (1 point)

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- The SEP Administrator accepts the submitted form as complete and notifies the VB.

- Evidence that the organization has signed a commitment to participate in developing and review a case study based on the submitted form.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Same criteria as certification

Additional Energy Performance Improvement (AEP)

This credit is available for achievement beyond the required EP improvement threshold.

AEP CREDIT 1: ADDITIONAL ENERGY PERFORMANCE IMPROVEMENT CREDIT

2 Points for every 1% energy performance improvement greater than the required threshold.

Intent

To demonstrate superior energy performance through improvements in energy performance above the EP improvement threshold.

Credit Statement

The organization shall track and demonstrate facility-level improvement that is greater than the required minimum for the achievement period shown in Table 1 of the *SEP Certification Protocol*. Points shall be awarded by the SEP PV based on the following criteria:

- **2 points** for every 1% energy performance improvement greater than the required EP improvement threshold in Table 1 of the *SEP Certification Protocol*.

Energy performance improvement is based on primary energy consumption.

Measurement and Verification Criteria

Certification Criteria

- Based on the verified SEnPI, **2 points for every 1%** energy performance improvement greater than the EP improvement threshold.
- The organization shall show records related to this credit during the achievement period and reporting period.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

Advanced Practice (AP)

The SEP Scorecard utilizes Advanced Practice credits to provide program flexibility. There are five credits available for organizations to utilize. The Advanced Practice credits provide flexibility for facilities with mature energy programs and proven performance improvement that are already "best in class" and cannot continue achieving aggressive energy performance improvements each certification period.

All of the Advanced Practice credits are mutually exclusive. Double counting is not allowed. If an organization has implemented a technology that qualifies under multiple innovation credits, it must decide which credit is most appropriate when completing their application for certification or recertification.

AP CREDIT 1: COMBINED HEAT AND POWER

1 - 5 Points

Intent

To promote utilization of Combined Heat and Power (CHP) and increase energy utilization of existing fuel sources, there is a maximum of 5 points available for this credit:

- 1 Point is available if the organization conducts a feasibility study. Note: A feasibility study, , is not required; however, the organization can receive points for both the study and the implementation.
- 1 to 4 Points are available based on the percentage of the three-year average annual site energy consumption that is replaced by the electrical and thermal energy output of the CHP system.

Credit Statement - feasibility study

Operations with simultaneous electricity and thermal energy use shall have completed an analysis of CHP feasibility. The CHP feasibility study contains details such as proposed size of the system, prime mover employed, heat recovery method and application, system efficiency, avoided cost, and expected investment. The feasibility study shall be no more than three years old at the time of the audit.

Credit Statement - CHP

For points to be awarded for operating a CHP system, the minimum CHP efficiency shall be 60%, as calculated using the following equation:

CHP Efficiency (%) = 100 x [Work output* (BTU) + Thermal Energy Recovered (BTU)] / CHP Fuel Input (BTU)*

Note: Work output could be output of the generator or mechanical work.
The fuel energy input shall be based on the lower heating value of the fuel.

Points as listed in Table 3 shall be awarded based on the percentage of site annual energy consumption that is replaced by the CHP system, as long as the CHP system has been operating for at least one year prior to the end of the achievement period. In Table 3, site energy is defined as the total of all energy sources that cross the organizational boundary or fence line and are not converted to primary energy. Site

energy includes renewable energy that is utilized by the organization and any portion of raw materials converted for energy uses that are not feedstock. Renewable energy is defined in AP2: Renewable Energy Supply. This energy also shall include that portion of raw material that is converted to an energy source in the process. The energy supplied by the CHP system shall be based on the electrical output of the generator and the thermal energy recovered.

For existing CHP systems, points for operating the system shall be based on the combined electrical and thermal energy output of the CHP system divided by the site energy consumption, averaged over the three years prior to certification or recertification, and expressed as a percentage.

TABLE 3: POINTS FOR CHP CREDIT

Action Completed	Points
Combined heat and power feasibility study	1
% of site energy supplied by CHP	Plus
≥ 20% and < 40%	1
≥ 40% and < 60%	2
≥ 60% and < 80%	3
≥ 80%	4

As an example, if 40% of site energy is supplied by the CHP system, then 2 points would be awarded.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

NOTE: The total site energy counted in Innovation credits 1 and 2 shall not exceed 100%

- Evidence of a CHP feasibility study completed within the last three years that includes details such as proposed size of the system, prime mover employed, heat recovery method and application, system efficiency, avoided cost, and expected investment (1 point).
- The following evidence will be used along with Table 3 to determine if further points will be awarded for this credit (up to 4 additional points):
    - Evidence that a CHP system has been operating for at least 12 months.
    - Evidence of CHP efficiency determination, with a resulting minimum efficiency of 60% over the operating period.
    - Evidence of CHP system operation time.
    - Evidence of determining site energy consumption for the three year period prior to SEP certification.
    - Evidence of determining percent site energy supplied by CHP for the three year period prior to SEP certification.

- The organization shall show records related to this credit during the achievement and reporting periods. Additional data during the surveillance periods is encouraged.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence of a new or updated CHP feasibility study completed within the last three years that includes details such as proposed size of the system, prime mover employed, heat recovery method and application, system efficiency, avoided cost, and expected investment (1 point).
- The following evidence will be used along with Table 3 to determine if further points will be awarded for this credit (up to 4 additional points):
  - Evidence that a CHP system has been operating for at least 12 months.
  - Evidence of CHP efficiency determination, with a resulting minimum efficiency of 60% over the operating period.
  - Evidence of CHP system operation time.
  - Evidence of determining site energy consumption for the three year period prior to SEP recertification.
  - Evidence of determining percent site energy supplied by the CHP system for the three year period prior to SEP recertification.

AP CREDIT 2: RENEWABLE ENERGY SUPPLY

1 - 5 Points

Intent

Reduce environmental impact, greenhouse-gas (GHG) emissions, and carbon footprint by converting to renewable energy resources within the boundaries of the EnMS.

Credit Statement- Feasibility study

One point shall be awarded for completing one or more renewable energy resource feasibility studies. The study or studies must be no more than three years old at the time of the audit. The renewable energy feasibility study is generally conducted by an independent contractor and contains details such as proposed size of the system, renewable energy resource recovered, proposed renewable energy hardware used, system efficiency, avoided cost, expected investment and potential investment cost off-sets, and tax credits available. Note: A feasibility study is not required to receive renewable energy supply points.

Credit Statement- Renewable energy supply

Points, as listed in Table 4, shall be awarded for installing and operating a renewable energy system. These points shall be based on the percentage of annual site energy consumption that is supplied by a renewable energy resource, as calculated using the following equation:

% Renewable Energy = 100 x [Energy Output of Renewable system (BTU)] / Site Energy Consumption (BTU)]

In this equation and in Table 4, site energy is defined in AP1: Combined Heat & Power.

For a new installation installed within 3 years prior to application for SEP certification, points shall be awarded based on the percentage of annual site energy consumption replaced by renewable energy resources, as long as the renewable energy system has been operating for one year. For existing renewable energy systems, points for operating the system shall be based on the percentage of the three year average annual energy consumption that is replaced by renewable energy resources within the boundaries of the EnMS.

TABLE 4: RENEWABLE ENERGY SUPPLY POINT SCALE

Actions Taken	Points
Feasibility study for renewable energy supply	1
Renewable energy, % of annual site energy consumption	Plus
≥ 0.5% and < 1%	1
≥ 1% and < 2%	2
≥ 2% and < 4%	3
≥ 4%	4

As an example, if 1% of site energy is replaced with renewable energy, then 2 points would be awarded.

Renewable energy is defined in the Federal EPACT 2005 and Renewable Energy Requirement Guidance for EPACT 2005 and Executive Order 13423 (January 28, 2008). Renewable energy in this legislation includes the following resources:

- Biomass
- Geothermal
- Solar
- Wind
- Landfill Gas
- Municipal Solid Waste
- Ocean
- Incremental Hydro

Biomass is lignin waste that is segregated and non-hazardous, or solid non-hazardous cellulosic material derived from forest resources, wood waste, agricultural waste, or plants grown exclusively for use as fuel. Renewable energy from the ocean includes wave, tidal, current, and thermal resources. For a variety of reasons, it is no longer realistic to build new hydroelectric projects in the United States, but incremental hydro takes advantage of the advancements in hydro turbine design and manufacturing technology to provide cost effective incremental improvements in energy generation. The increased efficiency offered by

modern hydro turbine design allows more energy generation without increasing water use or changing the basic operation of the facility.

Note: Purchased renewable energy generated outside the boundaries of the EnMS will not qualify for this credit. Purchased renewable energy generated within the boundaries of the EnMS (including renewable energy generated by equipment owned or operated by another organization) can qualify for this credit if the generated energy is consumed within the boundaries of the EnMS. .

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of a renewable energy feasibility study completed within the last three years that includes details such as proposed size of the system, renewable energy resource recovered, proposed renewable energy hardware used, system efficiency, avoided cost, expected investment and potential investment cost off-sets, and tax credits available (1 point).

  Note: This point is independent of the qualifying system points below. That means an organization can receive points for both the study and the qualifying system.

- The following evidence will be used along with Table 4 to determine if further points will be awarded for this credit (up to 4 points):
  - Evidence that a renewable energy system has been operating for at least 12 months.
  - Evidence of determining site energy consumption for the three year period prior to SEP certification.
  - Evidence of determining percent site energy consumption supplied by renewable energy system for the three year period prior to SEP certification.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Evidence of a new or updated renewable energy feasibility study completed within the last three years that includes details such as proposed size of the system, renewable energy resource recovered, proposed renewable energy hardware used, system efficiency, avoided cost, expected investment and potential investment cost off-sets and tax credits available (1 point)
- The following evidence will be used to determine if points associated with renewable energy will be awarded:
  - Evidence that a renewable energy system has been operating for at least 12 months.
  - Evidence of determining site energy consumption for the three year period prior to SEP re-certification.
  - Evidence of determining percent site energy consumption supplied by renewable energy system for the three year period prior to SEP re-certification.

AP CREDIT 3: SUPERIOR PERFORMANCE WITH BENCHMARKS

3 - 5 Points

Intent

To permit organizations to demonstrate superior energy performance through its ranking within a recognized external benchmark system.

Credit Statement

An organization shall demonstrate a ranking within the top levels of a nationally- or internationally-recognized external benchmark system in accordance with the Benchmarking Credit points listed below.

BENCHMARKING CREDIT POINTS

Organization's Position Relative to Benchmark System Levels	Points
Top 25%	3
Top 10%	4
Top 5%	5

This credit addresses the organization's performance relative to the external benchmark. Credit for organizational use of internal benchmarks is addressed in DM Credit 2.2, and does not apply for this credit. If the organization applies for AP 3 Credit, they may not use DM Credit 2.2 for external benchmark credit.

A recognized external benchmark system is typically developed by credible organizations such as industry associations, government entities, or consulting groups.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence that the organization demonstrates a ranking within the top levels of a recognized external benchmark system.
- The organization must demonstrate this credit using data from the achievement or reporting periods or a combination thereof.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

AP CREDIT 4: ENGAGEMENT OF SUPPLY CHAIN

1 - 5 Points

Intent

To permit an organization to demonstrate that it is influencing its supply chain's energy performance.

Credit Statement

The organization shall demonstrate that it is engaged with the supply chanin's energy performance improvement actions and EnMS by providing training or tracking, and receiving reporting from the supply chain on its energy management activities and energy performance improvements.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit:

- Evidence of engaging a group of suppliers that represent in aggregate an energy consumption that is greater than 10% of the energy consumption of the facility seeking this credit.
- Evidence of engaging with the supply chain regarding the chain's energy performance improvement actions and energy management system use.
- Evidence of training the supply chain regarding the chain's energy performance improvement actions and energy management system use.
- Evidence of tracking the energy performance improvements of the supply chain and the chain's energy management system activities.
- Evidence of receiving a formal exchange of reporting from the supply chain regarding the chain's energy management system activities and energy performance improvements.

1 point	Encouragement of supply chain to become certified to ISO 50001 or SEP
1 point	Training of the supply chain regarding the chain's energy performance improvement actions and energy management systems
1 point	Tracking of the supply chain's energy performance improvement
1 point	Verification of the suppliers energy performance improvement by the organizations' SEP PV or an external SEP PV using the M&V Protocol (can be remote or on site verification)
1 point	1 or more Supplier becomes certified to SEP

Note: Maximum number of points is 5

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

AP CREDIT 5: EMERGING TECHNOLOGIES

This credit requires approval by the SEP Administrator prior to the audit.

1 - 5 Points

Intent

To permit an organization to demonstrate superior energy performance through its implementation of innovative emerging technologies and processes that result in energy performance improvement, but that are not otherwise addressed in the SEP Scorecard.

Credit Statement

The organization shall achieve energy performance improvement by implementing emerging technologies and processes that are innovative and beyond the "business as usual" state of other sites in their industry sector (based on their two digit NAICS code). These technologies and processes cannot be addressed elsewhere within the SEP Scorecard.

The organization shall submit the following information with the SEP application, for each innovative action for which credit is being requested:

- Description of the emerging technology.
- Intent of the emerging technology action.
- Metric utilized to determine improvement.
- Energy performance improvement achieved.
- Justification for credit acceptance.

Credit for emerging technology shall be approved by the SEP Administrator. One to five points shall be awarded for each documented and accepted innovative action. The criteria will be provided by the SEP Administrator.

Measurement and Verification Criteria

Certification Criteria

The following evidence is required to determine if the organization satisfies the requirements of this credit.

- Evidence of written approval by the SEP Administrator for M&V criteria and potential points to be awarded.
- Evidence of description and intent of the emerging technology
- Evidence of reported energy performance improvement.
- Evidence of performance improvement metric including data, collection frequency, and trends
- Evidence technology or strategy has been deployed.

Surveillance Criteria

- Credits are not evaluated during surveillance audits.

Recertification Criteria

- Recertification criteria are the same as those for certification.

ANNEXES

ANNEX A: Additional information on auditing the Scorecard

Additional detail about the auditing requirements for the Scorecard is provided in ANSI/MSE 50028.

ANNEX B: Revision History

Title of Document	Date of Document	Version of Document
Superior Energy Performance® Scorecard	11 July 2016 (R1)	3.0
Superior Energy Performance™ Industrial Best Practices Scorecard	5 December 2012	2.0
Superior Energy Performance™ Industrial Best Practices Scorecard	9 November 2011	1.0

Learn more at energy.gov/betterbuildings/superior-energy-performance